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Scientific and Technical Information Center

# SEARCH REQUEST FORM

Requester's Full Name: MARK BERTH Examiner #: 59193 Date: 1/24/06  
Art Unit: 1624 Phone Number: 2-0663 Serial Number: 10813954  
Location (Bldg/Room#): 5C01 (Mailbox #): 5C18 Results Format Preferred (circle): PAPER DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: \_\_\_\_\_

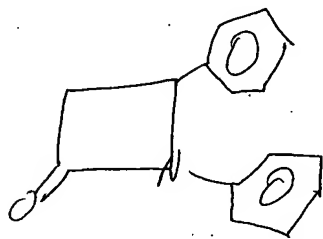
Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Date: \_\_\_\_\_

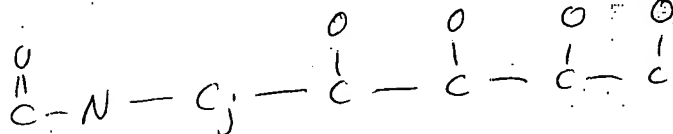
## Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



compound must have this fragment



j = 1-3

## STAFF USE ONLY

Searcher: \_\_\_\_\_

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: \_\_\_\_\_

Searcher Prep & Review Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

## Type of Search

\_\_\_\_ NA Sequence (#)

\_\_\_\_ AA Sequence (#)

\_\_\_\_ Structure (#)

\_\_\_\_ Bibliographic

\_\_\_\_ Litigation

\_\_\_\_ Fulltext

\_\_\_\_ Other

## Vendors and cost where applicable

\_\_\_\_ STN \_\_\_\_\_ Dialog

\_\_\_\_ Questel/Orbit \_\_\_\_\_ Lexis/Nexis

\_\_\_\_ Westlaw \_\_\_\_\_ WWW/Internet

\_\_\_\_ In-house sequence systems

\_\_\_\_ Commercial \_\_\_\_\_ Oligomer \_\_\_\_\_ Score/Length  
\_\_\_\_ Interference \_\_\_\_\_ SPDI \_\_\_\_\_ Encode/Transl  
\_\_\_\_ Other (specify)

=> d his ful

(FILE 'HOME' ENTERED AT 09:31:32 ON 02 FEB 2006)

FILE 'REGISTRY' ENTERED AT 09:31:42 ON 02 FEB 2006

L1 STR  
L2 0 SEA SSS SAM L1  
L3 12 SEA SSS FUL L1

FILE 'HCAPLUS' ENTERED AT 09:33:51 ON 02 FEB 2006

L4 6 SEA ABB=ON PLU=ON L3

FILE 'BEILSTEIN' ENTERED AT 09:34:05 ON 02 FEB 2006

L5 1 SEA SSS FUL L1  
L6 1 SEA ABB=ON PLU=ON L5/COM

FILE 'MARPAT' ENTERED AT 09:34:38 ON 02 FEB 2006

L7 STR L1  
L8 0 SEA SSS SAM L7  
L9 3 SEA SSS FUL L7  
L10 2 SEA ABB=ON PLU=ON L9/COM  
L11 0 SEA ABB=ON PLU=ON L10 NOT L4

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 31 JAN 2006 HIGHEST RN 873191-05-0

DICTIONARY FILE UPDATES: 31 JAN 2006 HIGHEST RN 873191-05-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

## FILE HCAPLUS

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FILE COVERS 1907 - 2 Feb 2006 VOL 144 ISS 6  
FILE LAST UPDATED: 1 Feb 2006 (20060201/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BEILSTEIN  
FILE LAST UPDATED ON JANUARY 17, 2006

FILE COVERS 1771 TO 2005.  
**FILE CONTAINS 9,428,406 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
\* FOR PRICE INFORMATION SEE HELP COST \*  
\*\*\*\*\*

NEW  
\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE  
SEARCHED, SELECTED AND TRANSFERRED.  
\* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES,  
ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A  
COMPOUND AT A GLANCE.

FILE MARPAT  
FILE CONTENT: 1969-PRESENT (VOL 144 ISS 5 (20060127/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1969-1987

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6962795 08 NOV 2005  
DE 1020040544 17 NOV 2005  
EP 1595877 16 NOV 2005  
JP 2005328067 24 NOV 2005  
WO 2005112644 01 DEC 2005

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:44:03 ON 02 FEB 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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Property values tagged with IC are from the ZIC/VINITI data file  
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STRUCTURE FILE UPDATES: 31 JAN 2006 HIGHEST RN 873191-05-0

DICTIONARY FILE UPDATES: 31 JAN 2006 HIGHEST RN 873191-05-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
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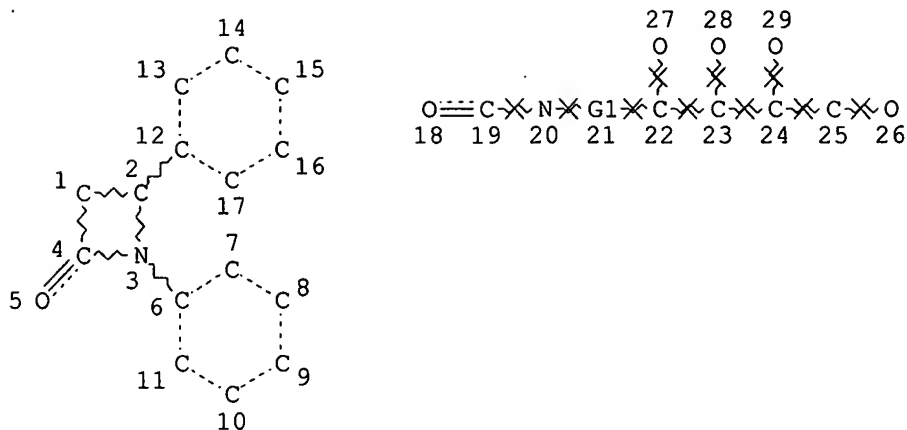
Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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L1 STR



REP G1=(1-3) C  
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE  
 L3 12 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 5319 ITERATIONS  
 SEARCH TIME: 00.00.01

12 ANSWERS

=> fil hcap  
 FILE 'HCAPLUS' ENTERED AT 09:44:20 ON 02 FEB 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

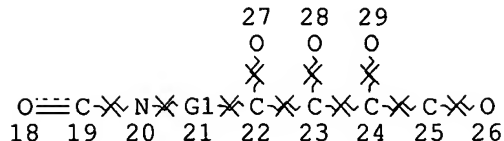
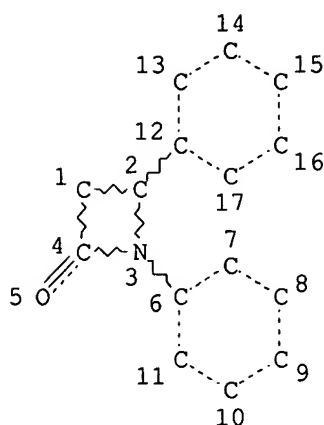
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FILE COVERS 1907 - 2 Feb 2006 VOL 144 ISS 6  
 FILE LAST UPDATED: 1 Feb 2006 (20060201/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1 STR



REP G1=(1-3) C  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE  
L3 12 SEA FILE=REGISTRY SSS FUL L1  
L4 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> d 14 ibib abs hitstr 1-6

L4 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:588892 HCAPLUS  
DOCUMENT NUMBER: 143:133694  
TITLE: Preparation of diphenylazetidinone amino acid derivatives having cholesterol absorption inhibitory activity  
INVENTOR(S): Alenfalk, Susanne; Dahlstroem, Mikael; Hunegnaw, Fana; Karlsson, Staffan; Lemurell, Malin; Lindqvist, Ann-Margret; Skjaeret, Tore; Starke, Ingemar  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.  
SOURCE: PCT Int. Appl., 189 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005061452	A1	20050707	WO 2004-SE1960	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				

PRIORITY APPLN. INFO.:

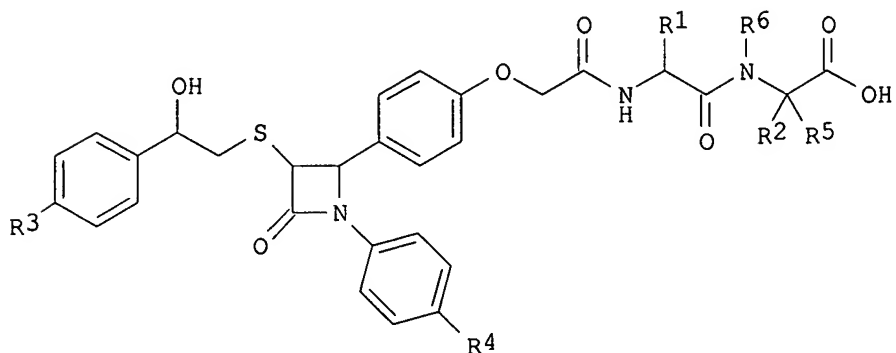
A 20031223

A 20040721

A 20041115

MARPAT 143:133694

GI



# I

IT 858103-64-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

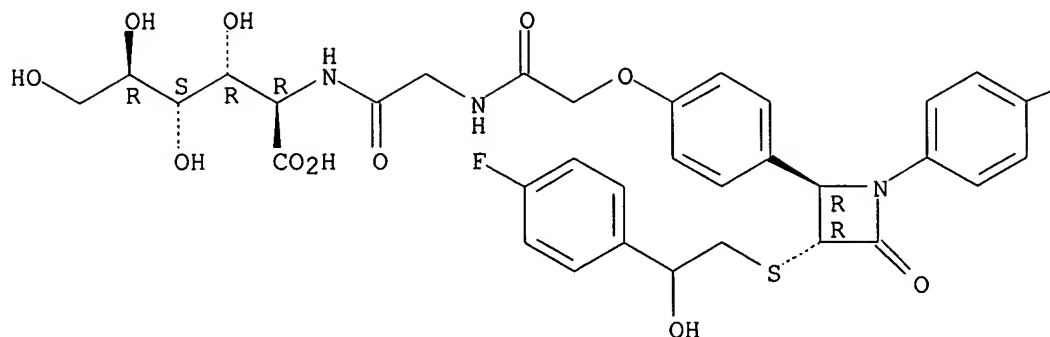
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(preparation of diphenylazetidinone amino acid derivs. having cholesterol
absorption inhibitory activity)
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RN 858103-64-7 HCAPLUS

CN D-Gluconic acid, 2-deoxy-2-[[[[[4-[(2R,3R)-1-(4-fluorophenyl)-3-[[2-(4-fluorophenyl)-2-hydroxyethyl]thio]-4-oxo-2-azetidinyl]phenoxy]acetyl]amino]acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—E

L4 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

DOCUMENT NUMBER: 141:314568

DOCUMENT NUMBER: 111751-1000  
TITLE: Novel diphenyl azetidinone with improved physiological characteristics, corresponding production method, medicaments containing said compound and use of the latter

INVENTOR(S): Jaehne, Gerhard; Frick, Wendelin; Lindenschmidt, Andreas; Flohr, Stefanie; Heuer, Hubert; Schaefer, Hans-Ludwig; Kramer, Werner; Galia, Eric; Glombik, Heiner

PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

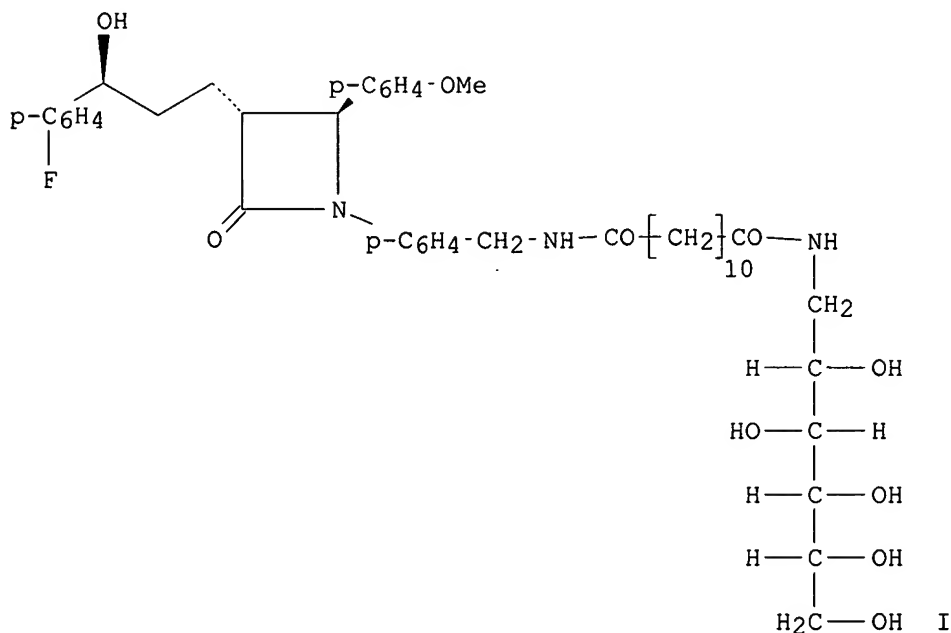
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087655	A1	20041014	WO 2004-EP2690	20040316
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			



DE 10314610	A1	20041104	DE 2003-10314610	20030401
CA 2520689	AA	20041014	CA 2004-2520689	20040316
EP 1613589	A1	20060111	EP 2004-720854	20040316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
US 2005020563	A1	20050127	US 2004-813954	20040331
PRIORITY APPLN. INFO.:			DE 2003-10314610	A 20030401
			US 2003-494456P	P 20030811
			WO 2004-EP2690	W 20040316
OTHER SOURCE(S):		MARPAT 141:314568		
GI				



AB The invention relates to a novel di-Ph azetidinone (I) and its physiol.  
compatible salts, to a method for its production, to medicaments containing  
said compound and to the use of the latter. Said compound is suitable for use for  
example as a hypolipidemic agent. Thus, dodecanedioic acid was reacted  
with thionyl chloride followed by MeOH to give a monomethyl ester, which  
was then reacted with glucamine and deesterified to give the monoamide  
intermediate (II). II was reacted with the previously known  
(2S,3R)-1-(4-aminomethylphenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-  
(4-methoxyphenyl)azetidin-2-one to give I in 32% yield. In in vitro tests  
on mice, I had ED50 0.005 mg/mouse for 50% reduction of liver 14C-labeled  
cholesterol. In solubility tests, compared to a similar reference compound, I  
had better solubility in water, at pH's 1.2, 4.5, 6.8, and 8.0, and in both fasted-  
(28 µg/mL vs 5) and fed-state simulating intestinal fluids (454  
µg/mL vs 18) (FaSSiF and FeSSiF).

IT **768394-99-6P**  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

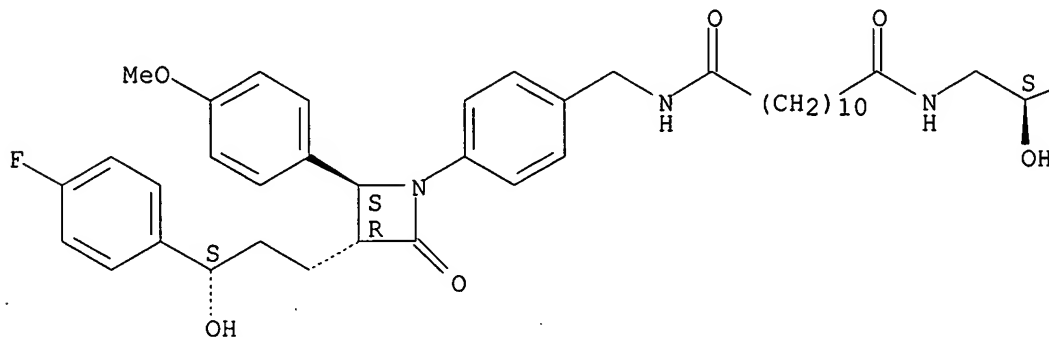
(preparation of 1,2-diphenylazetidinone alditol derivs. for use as hypolipidemics for treatment of hyperlipidemia)

RN 768394-99-6 HCAPLUS

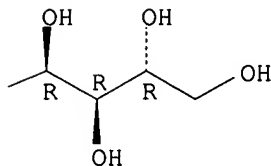
CN D-Glucitol, 1-deoxy-1-[[12-[[[4-[(2S,3R)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidinyl]phenyl]methyl]amino]-1,12-dioxododecyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 768394-97-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

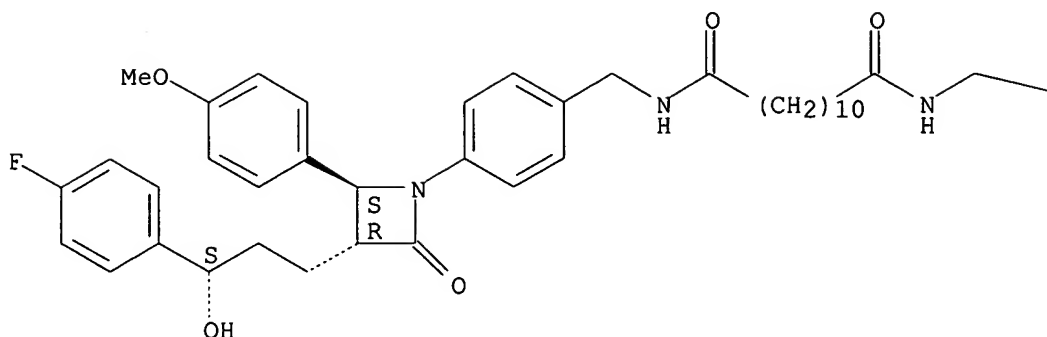
(preparation of 1,2-diphenylazetidinone alditol derivs. for use as hypolipidemics for treatment of hyperlipidemia)

RN 768394-97-4 HCAPLUS

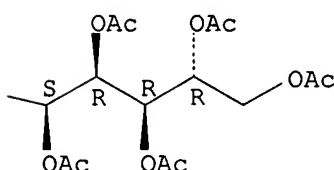
CN D-Glucitol, 1-deoxy-1-[[12-[[[4-[(2S,3R)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidinyl]phenyl]methyl]amino]-1,12-dioxododecyl]amino]-, 2,3,4,5,6-pentaacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:41434 HCAPLUS

DOCUMENT NUMBER: 140:111687

TITLE: Preparation of diphenylazetidinone peptide derivatives for treating disorders of lipid metabolism

INVENTOR(S): Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Lindqvist, Ann-Margret; Nordberg, Mats Peter; Skjaret, Tore; Lemurell, Malin Anita

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 134 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005247	A1	20040115	WO 2003-GB2811	20030701
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RW:				
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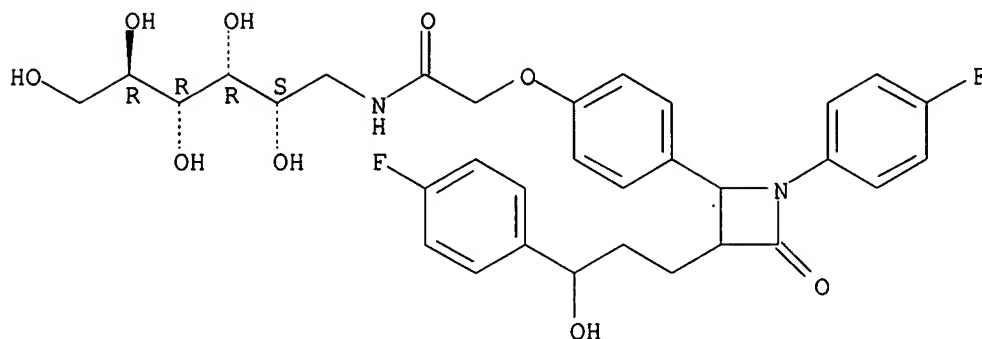
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IT      646523-74-2P
        RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
        (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (Uses)
        (preparation of diphenylazetidinone peptide derivs. for treating disorders
        of lipid metabolism)
RN      646523-74-2 HCAPLUS
CN      D-Glucitol, 1-deoxy-1-[[[4-[1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-
        hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]acetyl]amino]- (9CI) (CA INDEX
        NAME)

```

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:2850 HCAPLUS

DOCUMENT NUMBER: 140:77013

TITLE: Preparation of diphenylazetidinones for the treatment of hyperlipidemia, arteriosclerosis and hypercholesterolemia

INVENTOR(S): Jaehne, Gerhard; Frick, Wendelin; Flohr, Stefanie; Lindenschmidt, Andreas; Glombik, Heiner; Kramer, Werner; Heuer, Hubert; Schaefer, Hans-Ludwig

PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000804	A1	20031231	WO 2003-EP5815	20030604
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
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DE 10227506	A1	20040108	DE 2002-10227506	20020619
CA 2490109	AA	20031231	CA 2003-2490109	20030604
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BR 2003011940	A	20050405	BR 2003-11940	20030604
NZ 537304	A	20051028	NZ 2003-537304	20030604
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US 2004082561	A1	20040429	US 2003-463807	20030618
NO 2005000073	A	20050106	NO 2005-73	20050106
PRIORITY APPLN. INFO.:			DE 2002-10227506	A 20020619
			US 2002-411984P	P 20020919

W 20030604

OTHER SOURCE(S) :  
GI

MARPAT 140:77013

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [R1, R2, R3, R4, R5, R6 = (un)substituted alkylene-(LAG)n; n = 1-5; LAG = sugar; amino sugar; amino acid, etc.] and their pharmaceutically acceptable salts were prepared For example, N-alkylation of 1,4-diazabicyclo[2.2.2]octane with benzyl bromide II, e.g., prepared from 1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-(4-hydroxyphenyl)-2-azetidinone and 1,2-bisbromomethylbenzene, afforded diphenylazetidinone III. In rat liver chloesterol absorption assays, 26-examples of compds. I exhibited EC50 values ranging from 0.03-<1.0 (mg/mouse), e.g., the EC50 value of diphenylazetidinone III was 0.3. Compds. I are claimed useful for the treatment of hyperlipidemia, arteriosclerosis and hypercholesterolemia.

IT 640330-69-4P 641614-30-4P 641614-31-5P  
641614-40-6P

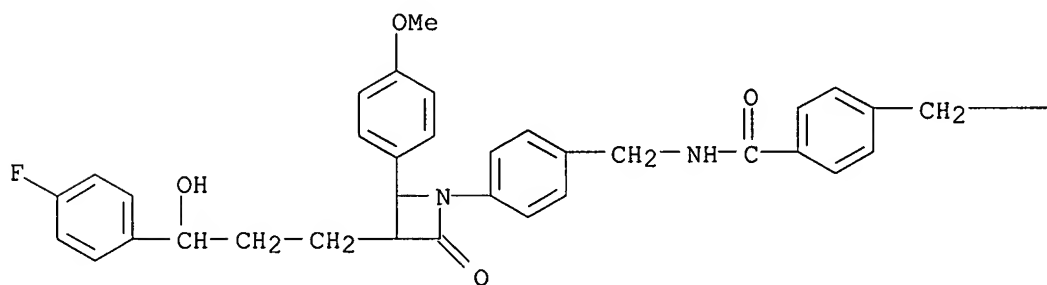
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of diphenylazetidinones for the treatment of hyperlipidemia, arteriosclerosis and hypercholesterolemia)

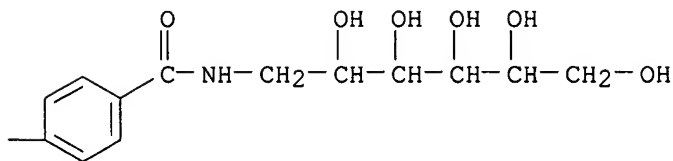
RN 640330-69-4 HCAPLUS

CN Hexitol, 1-deoxy-1-[[4-[[4-[[[4-[3-[3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidiny]phenyl]methyl]amino]carbonyl]phenyl]methyl]benzoyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

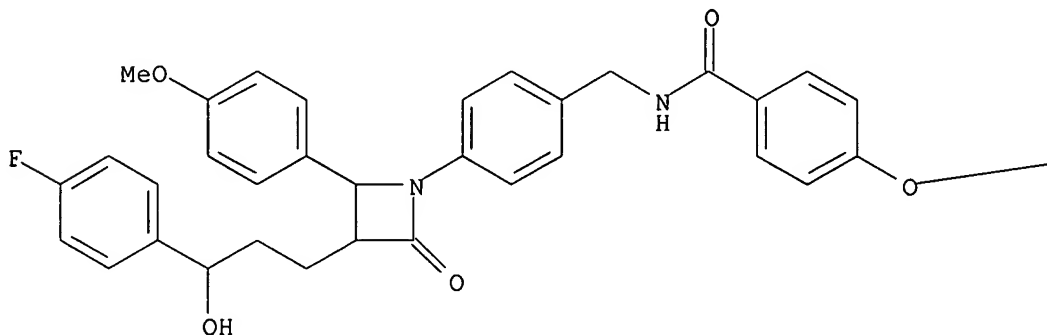


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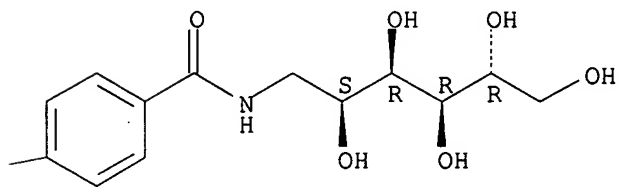
CN D-Glucitol, 1-deoxy-1-[[4-[4-[[[4-[3-[3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidiny]phenyl]methyl]amino]carbonyl]phenoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

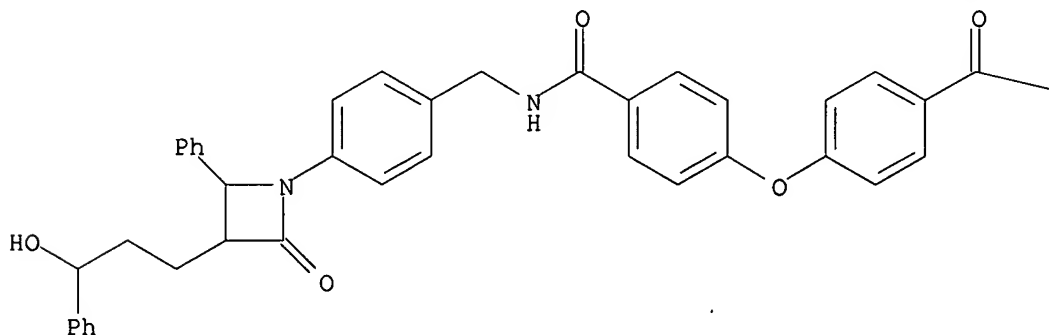


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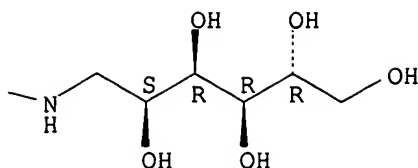
CN D-Glucitol, 1-deoxy-1-[[4-[4-[[[4-[3-(3-hydroxy-3-phenylpropyl)-2-oxo-4-phenyl-1-azetidiny]phenyl]methyl]amino]carbonyl]phenoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

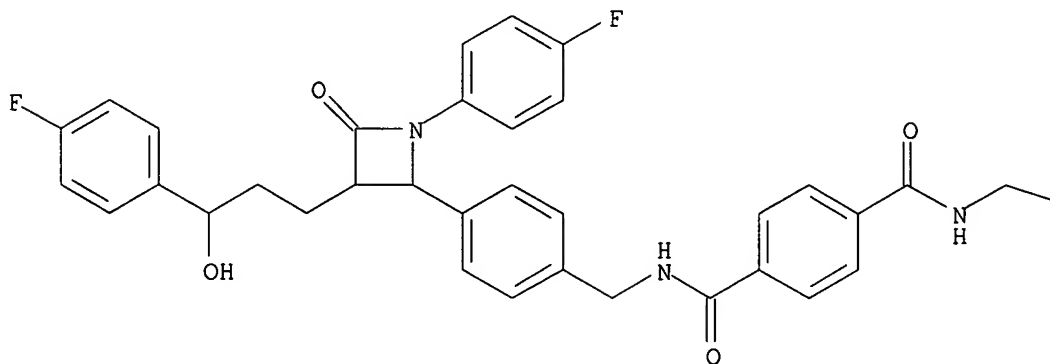


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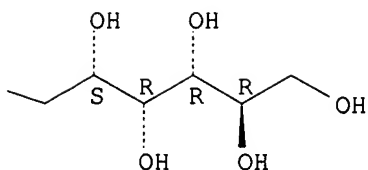
CN D-gluco-Heptitol, 1,2-dideoxy-1-[[4-[[[[4-[1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidiny]phenyl)methyl]amino]carbonyl]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:487523 HCAPLUS

DOCUMENT NUMBER: 137:63113

TITLE: Method for producing novel 1,2-diphenylazetidinones, medicaments containing them, and their use for treating disorders of lipid metabolism

INVENTOR(S): Glombik, Heiner; Kramer, Werner; Flohr, Stefanie;



Frick, Wendelin; Heuer, Hubert; Jaehne, Gerhard;  
 Lindenschmidt, Andreas; Schaefer, Hans-Ludwig  
 PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany  
 SOURCE: PCT Int. Appl., 77 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002050027	A1	20020627	WO 2001-EP14531	20011211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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DE 10152981	A1	20030508	DE 2001-10152981	20011026
CA 2431983	AA	20020627	CA 2001-2431983	20011211
AU 2002016097	A5	20020701	AU 2002-16097	20011211
EE 200300236	A	20030815	EE 2003-236	20011211
EP 1345895	A1	20030924	EP 2001-271353	20011211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001016325	A	20031014	BR 2001-16325	20011211
JP 2004516280	T2	20040603	JP 2002-551524	20011211
NZ 526593	A	20050225	NZ 2001-526593	20011211
US 2002137689	A1	20020926	US 2001-21502	20011219
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NO 2003002734	A	20030818	NO 2003-2734	20030616
US 2005267038	A1	20051201	US 2005-155109	20050617
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			DE 2000-10064398	A 20001221
			DE 2001-10152981	A 20011026
			WO 2001-EP14531	W 20011211
			US 2001-21502	A3 20011219
OTHER SOURCE(S): CASREACT 137:63113; MARPAT 137:63113				
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to the compds. I [R1, R2, R3, R4, R5, R6 =  
 C0-30-alkylene-LAG {optionally containing O, CO, CH:CH, C.tplbond.C,  
 N(C1-6-alkyl), N(C1-6-alkylphenyl), NH}, H, F, Cl, Br, I, CF3, NO2, CN,  
 CO2H, CO2(C1-6-alkyl), CONH, CONH(C1-6-alkyl), CON(C1-6-alkyl)2,  
 Cl-6-alkyl, Cl-6-alkenyl, Cl-6-alkynyl, O-(C1-6-alkyl), SO2NH2,  
 SO2NH(C1-6-alkyl) SO2N(C1-6-alkyl)2, S-(C1-6-alkyl), SO(C1-6-alkyl),  
 (un)substituted S(CH2)nPh, SO(CH2)nPh, SO2(C1-6-alkyl), SO2(CH2)nPh, NH2,  
 NH(C1-6-alkyl), N(C1-6-alkyl)2, NH(C1-6-acyl), (un)substituted Ph,  
 O(CH2)nPh; LAG = sugar residue, di-, tri-, tetrasaccharide, carbohydrate

acid, amino sugar, amino acid, oligopeptide (2 - 9 residues), (trialkylammonium)alkyl, OSO<sub>3</sub>H] and to their physiol. acceptable salts, suitable, for example, as hypolipidemics. Thus, 1,2-diphenylazetidinone II [R10 = CO(CH<sub>2</sub>)<sub>11</sub>NHCO(CHOH)4CH<sub>2</sub>OH] was prepared from (methoxyphenyl)azetidinone II (R10 = H) via N-acylation with 12-[(2,3,4,5,6-pentahydroxyhexanoyl)amino]dodecanoic acid. Azetidinone II was tested for its cholesterol lowering ability [ED<sub>50</sub> = 0.003 mg/mouse].

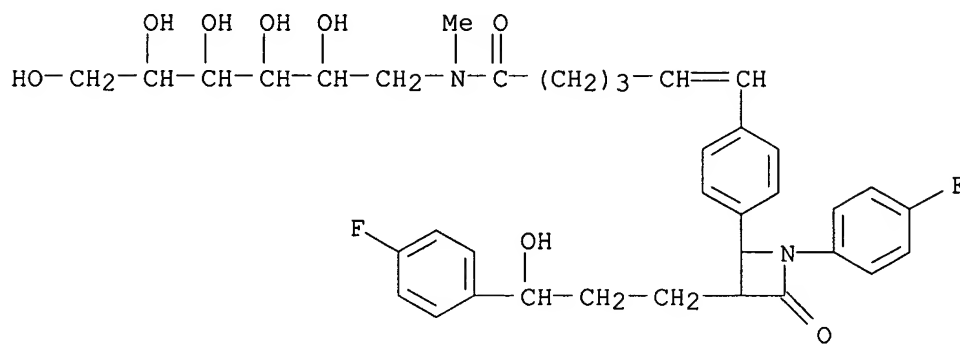
IT 439080-89-4P 439080-95-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel 1,2-diphenylazetidinones as hypolipidemics)

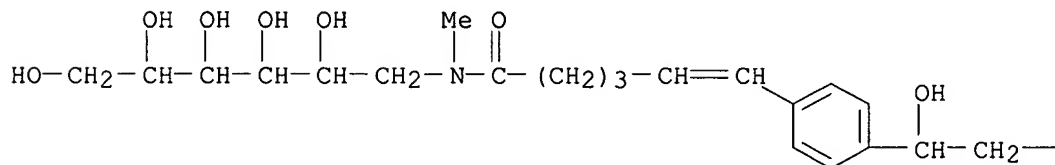
RN 439080-89-4 HCAPLUS

CN Hexitol, 1-deoxy-1-[[6-[4-[1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl]-1-oxo-5-hexenyl]methylamino]-(9CI) (CA INDEX NAME)



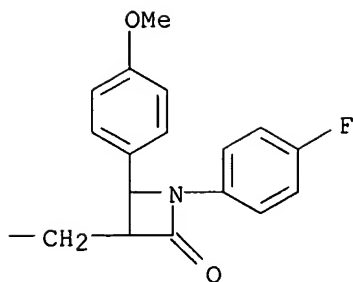
RN 439080-95-2 HCAPLUS

CN Hexitol, 1-deoxy-1-[[6-[4-[3-[1-(4-fluorophenyl)-2-(4-methoxyphenyl)-4-oxo-3-azetidinyl]-1-hydroxypropyl]phenyl]-1-oxo-5-hexenyl]methylamino]-(9CI) (CA INDEX NAME)



PAGE 1-A

PAGE 1-B

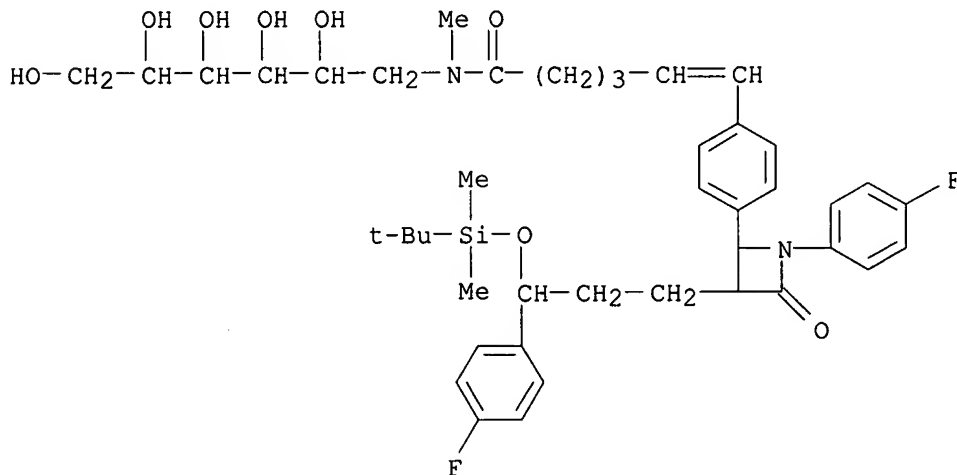


IT 439080-88-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of novel 1,2-diphenylazetidiones as hypolipidemics)

RN 439080-88-3 HCAPLUS

CN Hexitol, 1-deoxy-1-[[6-[4-[3-[3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3-(4-fluorophenyl)propyl]-1-(4-fluorophenyl)-4-oxo-2-azetidiny]phenyl]-1-oxo-5-hexenyl]methylamino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:337121 HCAPLUS

DOCUMENT NUMBER: 133:135519

TITLE: Synthesis of a new chiral oxazolidinone auxiliary based on D-xylose and its application to the Staudinger reaction

AUTHOR(S): Saul, Robert; Kopf, Jurgen; Koll, Peter

CORPORATE SOURCE: Department of Chemistry, University of Oldenburg, Oldenburg, D-26111, Germany

SOURCE: Tetrahedron: Asymmetry (2000), 11(2), 423-433

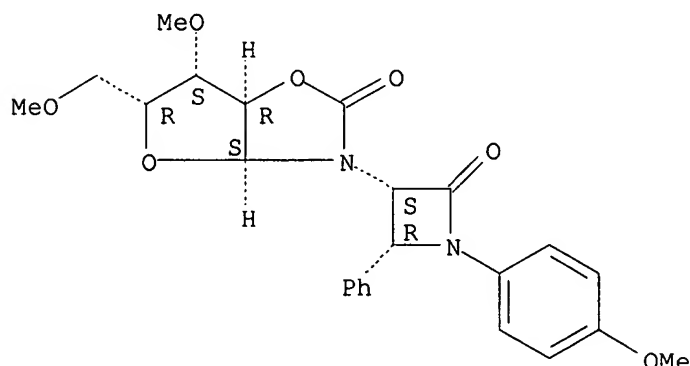
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English  
OTHER SOURCE(S): CASREACT 133:135519  
AB The synthesis of a new chiral oxazolidinone auxiliary based on D-xylose is described which is employed in diastereoselective Staudinger-type  $\beta$ -lactam syntheses. Using 2-chloro-1-methylpyridinium iodide as the dehydrating reagent, the reaction of auxiliary tethered acetic acid with acyclic or cyclic imines gave the desired  $\beta$ -lactams in good yields with excellent cis- or trans-selectivity depending on the geometry of the imine. X-Ray structure determination of one of the obtained compds. corroborated the absolute configuration for all cis products.  
IT **286435-80-1P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of a new chiral oxazolidinone auxiliary based on D-xylose and its application to the Staudinger reaction)  
RN 286435-80-1 HCAPLUS  
CN Furo[2,3-d]oxazol-2(3H)-one, tetrahydro-6-methoxy-5-(methoxymethyl)-3-[(3S,4R)-1-(4-methoxyphenyl)-2-oxo-4-phenyl-3-azetidiny]-, (3aS,5R,6S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 09:45:17 ON 02 FEB 2006

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FILE LAST UPDATED ON JANUARY 17, 2006

FILE COVERS 1771 TO 2005.

\*\*\* FILE CONTAINS 9,428,406 SUBSTANCES \*\*\*

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between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

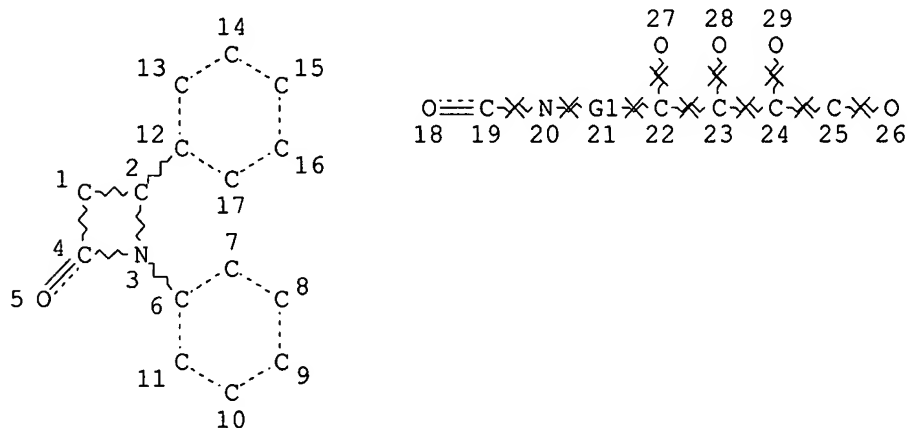
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 \* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
 \* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
 \* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
 \* FOR PRICE INFORMATION SEE HELP COST \*  
 \*\*\*\*\*

# NEW

\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.  
 \* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.

=> d que stat 16

L1 STR



REP G1=(1-3) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L5 1 SEA FILE=BEILSTEIN SSS FUL L1

L6 1 SEA FILE=BEILSTEIN ABB=ON PLU=ON L5/COM

=> d 16 ide allref

L6 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2006 BEILSTEIN MDL on STN

Beilstein Records (BRN): 8586283

Chemical Name (CN): 1-N-<cis-(3'S,4'R)-2'-oxo-4'-phenyl-1'-(p-methoxyphenyl)-3'-azetidiny>-1-N,2-O-carbonyl-3,5-di-O-methyl- $\alpha$ -D-xylofuranosylamine

Autonom Name (AUN): 6-methoxy-5-methoxymethyl-3-<1-(4-methoxyphenyl)-2-oxo-4-phenyl-azetidin-3-yl>-tetrahydro-furo<2,3-d>oxazol-2-one

Molec. Formula (MF): C<sub>24</sub> H<sub>26</sub> N<sub>2</sub> O<sub>7</sub>

Molecular Weight (MW): 454.48

Lawson Number (LN): 31877, 27709, 14892, 289

File Segment (FS): Stereo compound

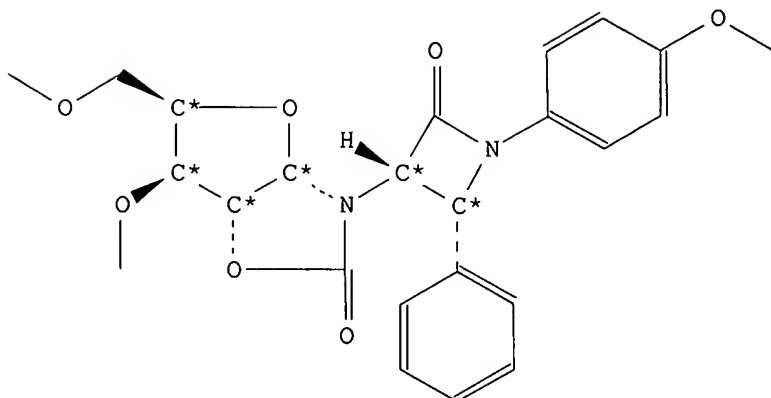
Compound Type (CTYPE): heterocyclic

Constitution ID (CONSID): 7271356

Tautomer ID (TAUTID): 8075597

Entry Date (DED): 2000/10/24

Update Date (DUPD): 2000/10/24



## Field Availability:

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AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	4
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
DED	Entry Date	1
DUPD	Update Date	1
MP	Melting Point	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:

ALLREF

1. Saul, Robert; Kopf, Juergen; Koell, Peter, Tetrahedron: Asymmetry, CODEN: TASYE3, 11(2), <2000>, 423 - 434; BABS-6242731

=&gt; fil marpat

FILE 'MARPAT' ENTERED AT 09:45:42 ON 02 FEB 2006

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FILE CONTENT: 1969-PRESENT (VOL 144 ISS 5 (20060127/ED))

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1969-1987

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6962795 08 NOV 2005

DE 1020040544 17 NOV 2005

EP 1595877 16 NOV 2005

JP 2005328067 24 NOV 2005

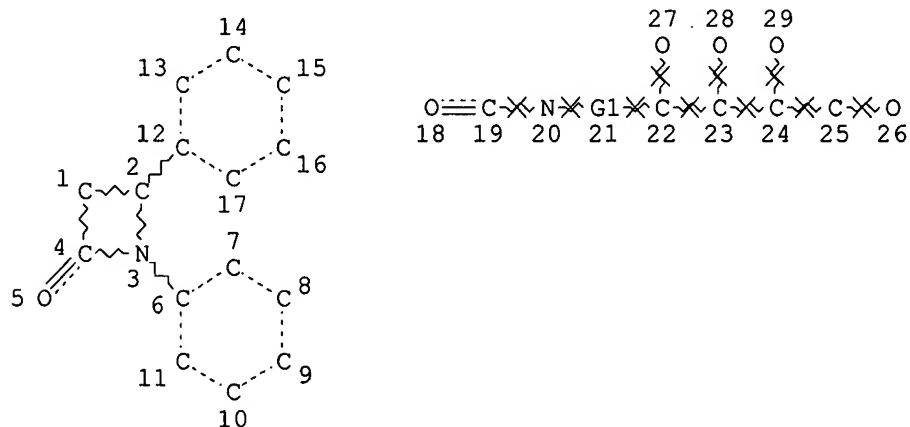
WO 2005112644 01 DEC 2005

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

=&gt; d que stat l11

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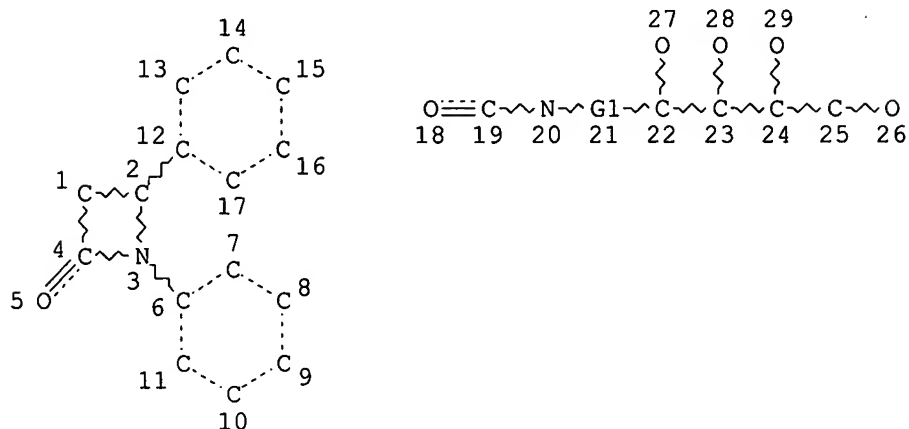
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NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

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L4 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L3  
L7 STR



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NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

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L10 2 SEA FILE=MARPAT ABB=ON PLU=ON L9/COM  
L11 0 SEA FILE=MARPAT ABB=ON PLU=ON L10 NOT L4